In the Claims:

1. (Currently Amended) An assay for detecting an effect a compound has on a membrane receptor~~/reporter fusion protein~~, comprising the steps of:

a) adding the compound to a cell expressing a ~~comprising said~~ membrane receptor/reporter fusion protein, the fusion protein comprising a membrane receptor segment and a reporter segment; and

b) detecting any change of said receptor/reporter fusion protein by detecting a signal from the reporter segment; wherein the membrane receptor segment is a constitutively active mutant receptor.

2. (Original) The assay according to claim 1 wherein said assay is used to screen compounds for their effect on membrane receptors.

3. – 4. (Cancelled)

5. (Currently Amended) The assay according to claim [[3]] 2 wherein ~~the membrane receptor is a constitutively active mutant receptor and~~ any change is detected as an increase in activity of the ~~receptor/~~reporter segment of the fusion protein.

6. (Currently Amended) The assay according to claim 1 wherein said assay is used to identify compounds that disrupt normal membrane receptor interactions~~, or can in themselves disrupt such interactions~~.

7. (Previously Presented) The assay according to claim 1 for detecting a compound which serves as an inverse agonist, antagonist or agonist of the membrane receptor.

8. (Currently Amended) The assay according to claim 7 wherein said inverse agonist, antagonist or agonist of the membrane receptor is used in the study of receptor function ~~or therapy~~.

9. (Currently Amended) The assay according to claim 1 wherein said membrane receptor is a ~~growth factor receptor, cytokine receptor, ion channel, integrin, or~~ G-protein coupled receptor.

10. – 11. (Cancelled)

12. (Currently Amended) The assay according to claim [[11]] 1 wherein the ~~constitutively active mutant~~ membrane receptor/reporter fusion protein is initially unstable, such that the reporter activity is detected at a basal level and wherein after binding of a compound to the receptor/~~reporter~~ segment of the fusion protein, the fusion protein is stabilized and an increase in reporter activity is observed.

13. (Previously Presented) The assay according to claim 9 wherein said G-protein coupled receptor is a serotonin receptor.

14. (Currently Amended) The assay according to claim 1 wherein the receptor/reporter fusion protein is expressed from nucleic acid construct comprising a gene encoding said reporter ~~protein~~ segment which is fused in-frame to the 5' or 3' end of a gene encoding said membrane receptor segment.

15. (Currently Amended) The assay according to claim 1 wherein the functionality of said membrane receptor/~~reporter fusion protein~~ segment is substantially unaffected by fusion of the reporter ~~protein~~ segment to the membrane receptor segment.

16. (Currently Amended) The assay according to claim 15 wherein said ~~reporter protein~~ reporter segment is Green Fluorescent Protein (GFP), or active variant thereof.

17. (Currently Amended) The assay according to claim 16 wherein light emitted by said GFP protein is detected by ~~fluoumetry~~ fluorimetry, FACS, or microscopy techniques.

18. (Currently Amended) The assay according to claim 15 wherein said reporter ~~protein~~ segment is *Renilla reniformis* (sea pansy) luciferase protein.

19. (Currently Amended) The assay according to claim 18 wherein said reporter ~~protein~~ segment is luciferase which is detected in a microplate luminometer or using a CCD imaging system.

20. (Currently Amended) The assay according to claim 1 wherein the signal from said reporter ~~protein~~ segment is used to localize and/or quantify the membrane receptor segment.

21. (Currently Amended) An assay according to claim 20 wherein any change of said membrane receptor/reporter fusion protein is detected as a change in cellular localisation of the receptor/reporter fusion protein, or semi-quantitatively by the synthesis or degradation of said membrane receptor/reporter fusion protein.

22. (Previously Presented) An assay according to claim 1 wherein said detection of any change of said membrane receptor/reporter fusion protein is carried out with cells placed on the surface of a microscope slide.

23. (Previously Presented) The assay according to claim 1 wherein said detection of any change of said membrane receptor/reporter fusion protein is carried out on cells placed in a well of a microtitre plate.

24. (Currently Amended) An assay for detecting a compound which ahs an effect on a membrane receptor, comprising the steps of

a) expressing a membrane receptor/reporter fusion protein in a cell, wherein the fusion protein comprises a membrane receptor segment and a reporter segment, and wherein the membrane receptor segment is a constitutively active mutant receptor;

b) detecting a basal level of reporter activity;

c) adding a test compound to the cell; and

d) detecting a resulting activity of the reporter ~~protein~~ segment, wherein alteration of reporter activity with respect to the basal level is due to the test compound having an effect on the membrane ~~complex~~ receptor segment.

25. (Cancelled)

26. (Currently Amended) The assay according to claim 24 wherein the ~~membrane receptor is a constitutively active mutant receptor and~~ alteration is an increase in reporter activity.

27. (Withdrawn) A membrane receptor/reporter fusion protein comprising a constitutively active mutant receptor which has a reporter added in-frame at the C-terminal.

28. (Withdrawn) The membrane receptor/reporter fusion protein according to claim 27 wherein the constitutively active mutant receptor is a GPCR.

29. (Withdrawn) The membrane receptor/reporter fusion protein according to claim 28 wherein the reporter protein is luciferase.

30. – 31. (Cancelled)

32. (Withdrawn) The membrane receptor/reporter fusion protein according to claim 27 wherein the reporter protein is GFP or luciferase.